UMATILLA RIVER, WALLA WALLA RIVER and WILLOW CREEK WATERSHEDS

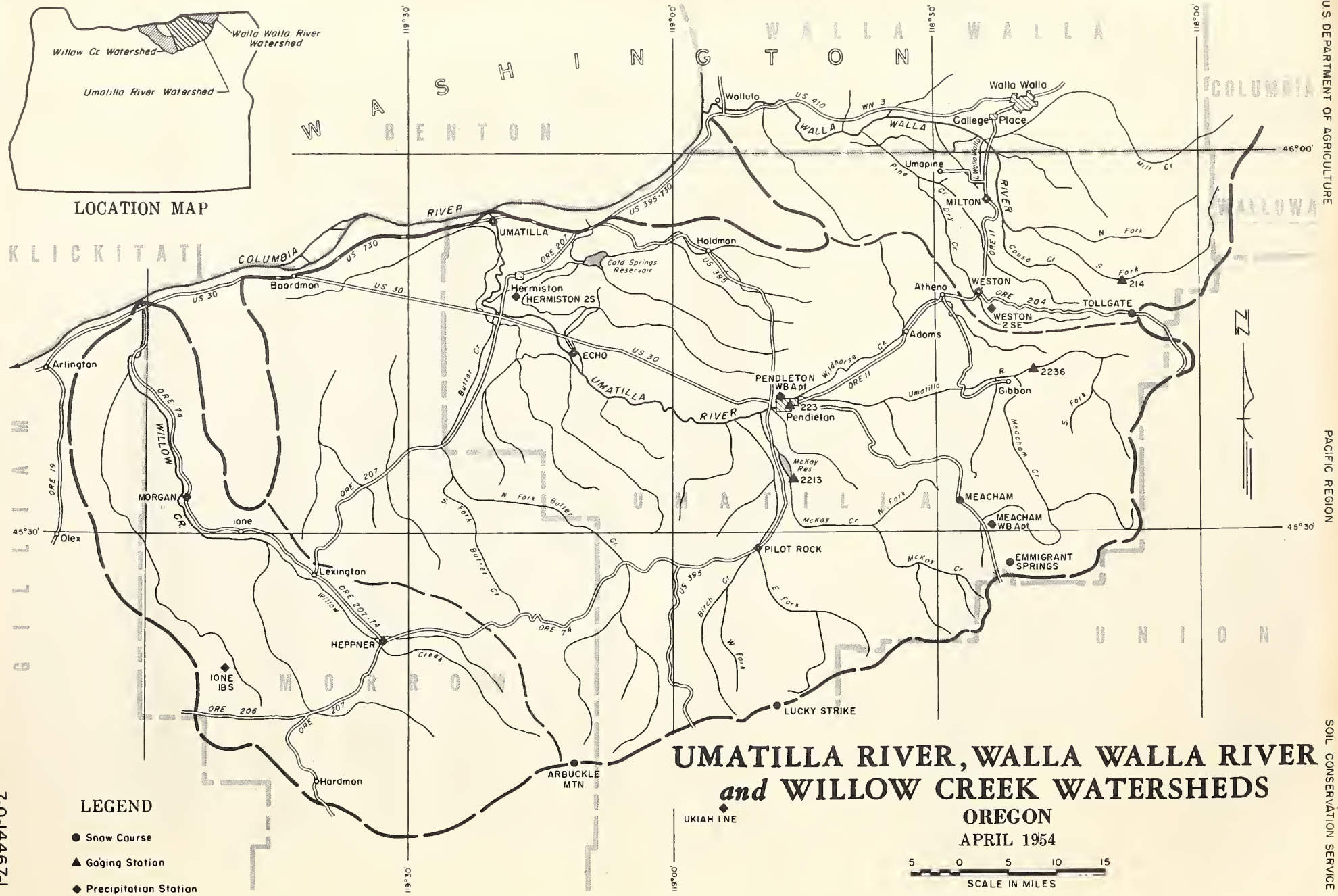
WATER SUPPLY OUTLOOK

as of

APRIL 1, 1954

U.S. SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

SUMMARY



UMATILLA RIVER, WALLA WALLA RIVER *and* WILLOW CREEK WATERSHEDS

OREGON

APRIL 1954

7-0-14467-L

U.S. DEPARTMENT OF AGRICULTURE

PACIFIC REGION

SOIL CONSERVATION SERVICE

WATER SUPPLY OUTLOOK - For April-September, 1954[a]

Source of Water	Acreage Irrigated	Outlook
Walla Walla Basin		Supplies water for city of Walla Walla. Flow will be adequate and will be about 20,000 a.f. during the next six months.
Mill Creek		
North Fork Walla Walla	124	Flow will be below normal but should be adequate for this year.
South Fork Walla Walla	348	Adequate for irrigation but below normal in flow.
Main Walla Walla	1,344	Adequate for usual irrigation.
Little Walla Walla	13,700	Adequate for most irrigation but late water rights on Hudson Bay and Plainview Ditches will be short late in season.
Mud Creek	373	See Little Walla Walla outlook.
Dry Creek	1,207	Adequate for usual irrigation. Late season water will be short.
Pine Creek	759	Adequate for usual irrigation. Late season water will be short.
Dugger Creek	595	See Little Walla Walla outlook.
Johnson Creek	110	See Little Walla Walla outlook.
Umatilla Basin		Adequate water supplies will be available only if river flow holds up as forecast. Late season flow dependent upon early summer rains.
Main Umatilla	12,074	
Umatilla and Cold Springs	6,000	Adequate water supplies will be available only if river flow holds up as forecast.
Umatilla and McKay Res.	9,693	Adequate water supplies will be available only if forecasted inflow to reservoir is received.
McKay Creek	280	Sufficient for one good irrigation. Late season water will be short.
Birch Creek	1,000	Sufficient for one good irrigation. Late season water will be short.
Butter Creek	6,000	Sufficient for one good irrigation. Late season water will be short.
WillowCreek Basin		Sufficient for one good irrigation. Late season water will be short.
Willow and Rhea Creeks	11,780	

a— Assuming normal meterological conditions during the April - September period.

STREAMFLOW FORECASTS[a] - As of April 1, 1954

Gaging Station No.	Name	Seasonal Streamflow in 1000a.f. Forecast 1954 Apr;Sept.	Forecast 1954 Apr-July	Avg. 1942-51	1954 as % of Avg
214	Walla Walla So.Fk. nr. Milton	62.0	— —	75.1	83
214	Walla Walla So.Fk. nr. Milton	— —	49.0	61.8	79
2236	Umatilla R., nr. Gibbon	61.0	— —	95.8	64
223	Umatilla R., at Pendleton	115.0	— —	188.1	61
223	Umatilla R., at Pendleton	— —	112.0	183.5	61
2213	McKay Cr., nr. Pilot Rock	19.0	— —	32.0	59
2213	McKay Cr., nr. Pilot Rock	— —	18.7	31.8	59

RESERVOIR STORAGE

Reservoir	Usable Capacity 1000 a.f.	Thousand a.f. in storage about April 1, 1954 1954	1953	10 yr. Avg. 1942-51	1954 as % of 10 yr. Avg.
McKay	74.0	43.9	65.3	64.0	68
Cold Springs	50.0	50.0	44.2	47.9	104
Total	124.0		109.5	111.9	

SOIL MOISTURE

Soils in:	Fall Status	Current status as of April 1, 1954
Valleys (irrigated)	Wetter than normal	Surface and subsoil slightly below normal
Mountains	Fairly wet soils	Well wetted soils

SNOW COVER – As of April 1, 1954

Snow Course No.	Name	Elev.	1954 Snow Depth (in)	1954 Water Content (in)	Water Content (in) 1953	Water Content (in) Average	1954 as % of Avg
–	below 4500'	–					
222	Emigrant Sprgs.	3925'	1.3	0.4	2.8	5.7	7
221	Meacham	4300'	11.2	3.3	8.9	8.6	38
	Average		—	1.8	5.8	7.2	25
–	above 4500'	–					
241	Arbuckle Mtn.	5400'	23.3	8.9	17.1	10.8	82
223	Lucky Strike	5050'	35.6	11.3	19.5	13.5	84
212	Tollgate	5070'	61.5	25.3	30.0	27.9	91
	Average		—	15.2	22.2	17.4	87
Average (5 courses)			—	9.8	15.7	13.3	74

PRECIPITATION DATA

Station Name	Elev.	Precipitation (inches) Sept	Oct	Nov	Dec	Jan	Feb	Mar	Avg	Normal*	Avg as % of Normal
Echo	601	0.00	0.61	1.39	1.34	1.62	0.43	1.02	0.92	1.02	90%
Heppner	1950	0.03	1.23	1.98	1.84	1.16	0.62	1.12	1.14	1.24	92%
Hermiston 2S	624	0.00	0.60	1.45	0.88	1.22	0.35	0.84	0.76	0.87	87%
Ione 18S	1925	0.00	0.97	2.16	1.67	1.63	0.71	0.86	1.14	1.24	92%
Meacham WB Apt	4050	0.09	1.38	3.05	5.55	1.95	1.39	1.50	2.13	3.70	58%
Milton	1060	0.01	1.09	1.76	1.73	1.65e	0.38	1.25	1.12	1.38	81%
Morgan	783	0.01	0.67	1.30	1.01	2.11	0.44	0.79	0.90	.94	96%
Pendleton WB.AP	1489	0.16	0.71	1.58	2.00	1.30	0.48	0.65	0.98	1.41	70%
Pilot Rock	1640	T	0.82	1.61	1.76	1.57	0.61	1.05	1.06	1.24	85%
Ukiah 1NE	3340	0.09	0.82	2.02	2.29	1.54	0.75	1.25	1.25	1.61	78%
Umatilla	285	T	0.31	1.51	0.82	1.40	0.28	0.73	0.72	0.83	87%
Weston 2SE	2100	0.11	1.87	2.60	3.41	2.75	1.12	1.69	1.94	2.11	92%
Average		0.04	0.92	1.87	2.02	1.66	0.63	1.06	1.17	1.47	80%
Normal*		0.77	1.23	1.72	1.77	1.75	1.57	1.45			
Average as % of normal		5%	75%	109%	114%	95%	40%	73%			

Fall Avg as % of Fall Normal (Sept–Oct–Nov) 76%

* as published by USWB e–estimated